IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Attorney Docket No. 15975US01

In the Application of:

Jyothis Indirabhai

U.S. Serial No.: 09/935,082

Filed: August 21, 2001

For: SYSTEM AND METHOD FOR SYNCHRONIZING WIRELESS COMMUNICATION DEVICES

Examiner: Phuoc Huu Doan

Group Art Unit: 2617

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APPEAL BRIEF

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This paper is a timely Appeal Brief. A Notice of Appeal was received by the United States Patent and Trademark Office on October 15, 2007 for the above-identified patent application. A Petition for a Two-Month Extension has been filed, thereby extending the deadline by which to file an Appeal Brief to February 15, 2008.

REAL PARTY IN INTEREST

Broadcom Corporation, a corporation organized under the laws of the state of California and having a place of business at 5300 California Avenue, Irvine, California 92617, has acquired the entire right, title and interest in and to the invention, the application, and any and all patents to be obtained therefor.

RELATED APPEALS AND INTERFERENCES

There are currently no appeals or interferences pending regarding related applications.

STATUS OF THE CLAIMS

Claims 1-30 are pending and are being prosecuted in the present application. Claims 1-30 stand rejected. The rejection of claims 1-30 is being appealed.

STATUS OF AMENDMENTS

A Response After Office Action Made Final was filed September 11, 2007. No amendments to the application were made in the Response After Office Action Made Final. In response thereto, an Advisory Action was mailed on October 3, 2007.

SUMMARY OF CLAIMED SUBJECT MATTER

Some embodiments according to some aspects of the present invention may provide, for example, a method that distributes timing information amongst a plurality of master devices as set forth, for example, in claim 1. The method may include, for example, one or more of the following: distributing a global clock to a first master device from the plurality of master devices wherein the first master device operates according to a local clock that is independent of the global clock; determining an offset between the

global clock and the local clock; and distributing the offset to at least one master device other than the first master device.

Some embodiments according to some aspects of the present invention may provide, for example, a method that distributes timing information amongst of a plurality of master devices as set forth, for example, in claim 10. The method may include, for example, one or more of the following: distributing a global clock to a first master device from the plurality of master devices; generating a local clock using an offset and the global clock, wherein the local clock is used by the first master device; and distributing the offset to a second master device selected from the plurality of master devices.

Some embodiments according to some aspects of the present invention may provide, for example, a system as set forth, for example, in claim 15. The system may include, for example, a communication pathway, a global clock and a plurality of master devices. The global clock may be coupled to, for example, the communication pathway. The plurality of master devices may be coupled to, for example, the communication pathway. Each of the master devices may include, for example, a local clock generator and means for determining an offset between said global clock and said local clock in which the offset is distributed to at least one of the master devices. The local clock generator may generate, for example, the local clock.

Some embodiments according to some aspects of the present invention may provide, for example, a system as set forth, for example, in claim 23. The system may include, for example, a communication pathway, a global clock and a plurality of master devices. The global clock may be coupled, for example, to the communication pathway. The plurality of master devices may be coupled to, for example, the communication pathway. Each of said master devices may include, for example, means for generating a local clock using an offset and the global clock in which the offset is available to other of the master devices via the communication pathway.

GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Whether claims 1-30 are unpatentable under 35 U.S.C. § 103(a) as being obvious over United States Patent Publication No. 2002/0031196 A1 to Thomas Muller et al. ("Muller") in view of United States Patent Publication No. 2002/0114303 A1 to David B. Crosbie et al. ("Crosbie").

ARGUMENT

I. CLAIMS 1-9

Claim 1 stands rejected under 35 U.S.C. § 103(a) as being obvious over United States Patent Publication No. 2002/0031196 A1 to Thomas Muller et al. ("Muller") in view of United States Patent Publication No. 2002/0114303 A1 to David B. Crosbie et al. ("Crosbie"). It is respectfully requested that the Board reverse the rejection for at least the reasons as set forth below.

To maintain the obviousness rejection, each and every element as set forth in the claims must be taught by Muller in view of Crosbie. Appellant respectfully submits that Muller in view of Crosbie does not teach each and every element as set forth in the claims.

Claim 1 recites, for example, "distributing a global clock to a first master device from the plurality of master devices wherein said first master device operates according to a local clock that is independent of said global clock" and "distributing said offset to at least one master device other than said first master device".

The Examiner states, in the form of an admission, that Muller does not teach at least the above-recited elements as set forth in claim 1. However, the Examiner also states that Crosbie makes up for the teaching deficiencies of Muller. Appellant respectfully submits that, at the very least, Crosbie does not make up for the teaching deficiencies of Muller.

Appellant respectfully draws the attention of the Board to the fact that, on the one hand, claim 1 recites "distributing a global clock" and, on the other hand, claim 1 recites

"distributing said offset to at least one master device other than said first master device". Accordingly, claim 1 differentiates between distributing a clock and distributing an offset. Appellant respectfully submits that Crosbie does not teach at least the following elements: "distributing said offset to at least one master device other than said first master device".

Crosbie at FIG. 6 shows a gold access point 24-4 sending a timing signal 42-3 to a silver access point 24-5 that has a silver slave timing module 40-1 and a silver master timing module 38-2. The timing signal 42-3 is not the "offset" as set forth in claim 1. As corresponding FIG. 5 shows, "[t]he timing pattern 44-4 shows *a timing signal* for a gold clock 63-1 produced by a gold oscillator 64-1 (see FIG. 6) which is contained in or associated with a gold access point 24-4". Crosbie at page 6, paragraph [0062] (italics added). As FIG. 5 shows, timing pattern 44-4, which is timing signal 42-3 is not an offset, but a clock signal.

Further evidence that silver access point 24-5 does not receive an "offset" from the golf access point 24-4 can be found in Crosbie. "In FIG. 6, the silver access point 24-5 on the slave side timing module 40-1 measures the phase difference or clock offset 62-1 (see FIG. 5) between the unadjusted silver clock 66-1 and the gold clock 63-1 as determined by a timing signal 42-3 received from the golf access point 24-4". Crosbie at page 7, paragraph [0070]. Thus, as shown in FIGS. 5 and 6, the silver access point 24-5 receives the gold clock signal of the gold access point 24-4 in the form of the timing signal 42-3 (see timing pattern 44-4 in FIG. 5) and compares it with its own unadjusted silver clock 66-1. From the comparison, the silver access point 24-5 determines an offset. See "silver offset 62-1" in FIG. 5 of Crosbie. Thus, no offset is being distributed as set forth in claim 1.

After the silver offset 62-1 is determined in the silver access point 24-5 by comparing the received gold clock 63-1 and unadjusted silver clock 66-1, the silver offset 62-1 is shared internally between the silver slave timing module 40-1 and the silver master timing module 38-2 of the *same* access point (i.e., the silver access point 24-5 as shown in FIG. 7 of Crosbie) via timing registers 92-1, 92-2 of the *same* access point.

In view of at least the foregoing, Appellant respectfully submits that Crosbie does not teach "distributing said offset to at least one master device other than said first master device". Instead, Crosbie describes sending clock signals (not offsets) as timing signals between access points of different hierarchy. Furthermore, Crosbie describes sharing timing information between a slave timing module and a master timing module of the same access point.

Since Crosbie does not make up for the admitted teaching deficiencies of Muller, the obviousness rejection cannot be maintained. It is therefore respectfully requested that the obviousness rejection be reversed with respect to claim 1 and its rejected dependent claims (i.e., claims 2-9).

II. CLAIMS 10-14

Claim 10 stands rejected under 35 U.S.C. § 103(a) as being obvious over Muller in view of Crosbie. It is respectfully requested that the Board reverse the rejection for at least the reasons as set forth below.

To maintain the obviousness rejection, each and every element as set forth in the claims must be taught by Muller in view of Crosbie. Appellant respectfully submits that Muller in view of Crosbie does not teach each and every element as set forth in the claims.

Claim 10 recites, for example, "distributing a global clock to a first master device from the plurality of master devices" and "distributing said offset to a second master device selected from the plurality of master devices". Accordingly, at least the same or similar arguments, if appropriate, that were made with respect to claim 1 are made with respect to claim 10.

Since Crosbie does not make up for the admitted teaching deficiencies of Muller, the obviousness rejection cannot be maintained. It is therefore respectfully requested that the obviousness rejection be reversed with respect to claim 10 and its rejected dependent claims (i.e., claims 11-14).

III. CLAIMS 15-22

Claim 15 stands rejected under 35 U.S.C. § 103(a) as being obvious over Muller in view of Crosbie. It is respectfully requested that the Board reverse the rejection for at least the reasons as set forth below.

To maintain the obviousness rejection, each and every element as set forth in the claims must be taught by Muller in view of Crosbie. Appellant respectfully submits that Muller in view of Crosbie does not teach each and every element as set forth in the claims.

Claim 15 recites, for example, "means for determining an offset between said global clock and said local clock, wherein said offset is distributed to at least one of said master devices". Accordingly, at least the same or similar arguments, if appropriate, that were made with respect to claim 1 are made with respect to claim 15.

Since Crosbie does not make up for the admitted teaching deficiencies of Muller, the obviousness rejection cannot be maintained. It is therefore respectfully requested that the obviousness rejection be reversed with respect to claim 15 and its rejected dependent claims (i.e., claims 16-22).

IV. CLAIMS 23-30

Claim 23 stands rejected under 35 U.S.C. § 103(a) as being obvious over Muller in view of Crosbie. It is respectfully requested that the Board reverse the rejection for at least the reasons as set forth below.

To maintain the obviousness rejection, each and every element as set forth in the claims must be taught by Muller in view of Crosbie. Appellant respectfully submits that Muller in view of Crosbie does not teach each and every element as set forth in the claims.

Claim 23 recites, for example, "means for generating a local clock using an offset and said global clock, wherein said offset is available to other of said master devices via said communication pathway". Accordingly, at least the same or similar arguments, if appropriate, that were made with respect to claim 1 are made with respect to claim 23.

Since Crosbie does not make up for the admitted teaching deficiencies of Muller, the obviousness rejection cannot be maintained. It is therefore respectfully requested that the obviousness rejection be reversed with respect to claim 23 and its rejected dependent claims (i.e., claims 24-30).

V. CONCLUSION

For the foregoing reasons, it is believed that claims 1-30 are patentable over the alleged prior art of record. Reversal of the Examiner's rejection of claims 1-30 is therefore respectfully requested, thereby placing claims 1-30 in condition for allowance. Accordingly, issuance of a patent on the application is therefore respectfully requested.

The Commissioner is hereby authorized to charge any additional fees, to charge any fee deficiencies or to credit any overpayments to the deposit account of McAndrews, Held & Malloy, Account No. 13-0017.

Dated: February 15, 2008

Respectfully submitted,

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CLAIMS APPENDIX

The following claims are involved in this appeal:

1. A method for distributing timing information amongst a plurality of master devices, the method comprising:

distributing a global clock to a first master device from the plurality of master devices wherein said first master device operates according to a local clock that is independent of said global clock;

determining an offset between said global clock and said local clock; and

distributing said offset to at least one master device other than said first master device.

2. The method of claim 1 wherein said global clock comprises a local clock of one of the plurality of master devices.

3. The method of claim 1 wherein said offset is distributed over a communication pathway linking said first one of said master devices to said at least one of said master devices.

4. The method of claim 3 wherein said communication pathway comprises a wired communication pathway.

5. The method of claim 3 wherein said communication pathway comprises a wireless communication pathway.

6. The method of claim 1 wherein said distributing said offset comprises storing said offset in a memory accessible to said plurality of master devices.

7. The method of claim 1 wherein said distributing said offset comprises providing said offset upon receiving a request from one of said plurality of master devices.

8. The method according to claim 1 wherein each of said plurality of master devices stores said offset.

9. The method of claim 1 wherein said master device comprises a Bluetooth™ device configured to act as a master.

10. A method for distributing timing information amongst of a plurality of master devices, the method comprising:

distributing a global clock to a first master device from the plurality of master devices;

generating a local clock using an offset and said global clock, wherein said local clock is used by said first master device; and

distributing said offset to a second master device selected from the plurality of master devices.

11. The method of claim 10 wherein each of said master devices includes a local oscillator and wherein said global clock comprises a clock signal generated by the local oscillator associated with one of the plurality of master devices.

12. The method of claim 10 wherein said offset is stored in a central location and provided to at least one of said master devices.

13. The method of claim 10 wherein said offset is stored locally at said second master device.

14. The method of claim 10 wherein said master device comprises a Bluetooth™ device configured to act as a master.

15. A system comprising:

a communication pathway;

a global clock, coupled to said communication pathway; and

a plurality of master devices coupled to said communication pathway, wherein each of said master devices includes:

a local clock generator that generates a local clock, and

means for determining an offset between said global clock and said local clock, wherein said offset is distributed to at least one of said master devices.

16. The system of claim 15 wherein said communication pathway comprises a wired communication pathway.

17. The system of claim 15 wherein said communication pathway comprises a wireless communication pathway.

18. The system of claim 15 wherein said global clock comprises one of said local clocks.

19. The system of claim 15 further comprising a memory coupled to said communication pathway, wherein said offsets are stored in said memory.

20. The system of claim 15 wherein said offset is distributed upon request by one of said master devices.

21. The system of claim 15 wherein each of said master devices further includes a local memory for storing offsets associated with at least one of said master devices.

22. The system of claim 15 wherein said master device comprises a Bluetooth™ device configured to act as a master.

23. A system comprising:

a communication pathway;

a global clock coupled to said communication pathway;

a plurality of master devices coupled to said communication pathway, wherein each of said master devices includes

means for generating a local clock using an offset and said global clock, wherein said offset is available to other of said master devices via said communication pathway.

24. The system of claim 23 wherein said communication pathway comprises a wired communication pathway.

25. The system of claim 23 wherein said communication pathway comprises a wireless communication pathway.

26. The system of claim 23 wherein said global clock comprises one of said local clocks.

27. The system of claim 23 further comprising a memory coupled to said communication pathway, wherein said offsets are stored in said memory.

28. The system of claim 23 wherein said offset is distributed upon request by one of said master devices.

29. The system of claim 23 wherein each of said master devices further includes a local memory for storing offsets associated with at least one of said master devices.

30. The system of claim 23 wherein said master device comprises a Bluetooth™ device configured to act as a master.

EVIDENCE APPENDIX

None.

RELATED PROCEEDINGS APPENDIX

None.